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## Turning negative into positive

CSX, Ports America put Baltimore on container map despite distance from ocean.

## By Eric Kulisch

The Port of Baltimore, relegated to the lower tier of harbors in the container trade for the better part of 20 years, is poised for significant growth as new wharf and intermodal investments get underway and private sector partners heavily market it as an international gateway for Midwest retailers and manufacturers, according to port officials and industry experts.

The new infrastructure prepares the port to handle the mega-containerships that ocean carriers are deploying and will run from Asia to the East Coast once the Panama Canal is widened and deepened in 2014. Key factors carriers consider for ports of call are infrastructure quality and capacity, inland connectivity, local population density and warehousing.

Ports America is more than halfway done with a \$100 million capital investment program to construct a 50-foot berth for containerships, install giant cranes and make other improvements. The berth's depth will equal the harbor's shipping channel and its Chesapeake Bay approach.

The largest independent port operating company in the United States took over management of Baltimore's Seagirt Marine Terminal early last year after winning a 50-year concession from the state of Maryland in exchange for current and future infrastructure upgrades and \$140 million to the Maryland Department of Transportation for road and highway improvements across the state.



The new section of wharf is expected to be completed by August 2012, port officials say. The work is ahead of schedule and under budget, according to Christopher Lee, managing director of Ports America owner Highstar Capital.

Meanwhile, CSX Corp., one of two major eastern railroads, in late May announced plans to build an intermodal terminal outside Baltimore as part of its \$850 million National Gateway Initiative to create a more efficient rail network capable of transporting intermodal cars with double-stacked containers. Routes through North Carolina, Virginia, West Virginia, the District of Columbia, Maryland, Pennsylvania and Ohio are scheduled to have bridges and tunnels raised or removed, or tracks lowered, to accommodate taller freight cars, providing Midwest customers with improved access to mid-Atlantic ports. Other prime beneficiaries of the infrastructure investment are the Port of Virginia in Norfolk and the Port of Wilmington in North Carolina.

More than 50 locations between Baltimore and Northwest Ohio alone have to be cleared.

Jacksonville, Fla.-based CSX has mobilized a public-private partnership to develop the National Gateway, with more than \$280 million in federal and state support.

CSX said it and Maryland will each invest \$75 million to build the new intermodal terminal at one of four potential sites south of Baltimore. Maryland plans to request federal funds for its portion of the arrangement. Public hearings to help identify the best location are scheduled for the fall.

The railroad also said it is putting up the remainder of the capital, \$160 million, to complete the track clearances necessary for double-stack <u>service on several key</u> corridors in the next several years.

The extra 10-to-12 hour voyage up the Chesapeake has historically been a disadvantage for Baltimore in trying to woo carriers. But analysts and port stakeholders expect cargo owners and carriers to take a second look because:

- It's 150 miles inland and the closest ocean port to the prized Midwest consumer market.
- It's in an affluent and growing metropolitan region with a large concentration of retail distribution centers within a 100-mile radius.
- It allows for more efficient ocean transport to handle a portion of the inland move at a time when diesel fuel prices for trucks have spiked and curbing greenhouse gas emissions has become a national concern.

Port officials note that one-third of the U.S. population can be reached in an overnight drive from Baltimore.

Maryland Gov. Martin O'Malley approved the deal with Ports America, and said the

Seagirt Terminal expansion will support the creation of 5,700 state jobs in construction, operations and companies that need dependable transportation to take advantage of new business opportunities.

Baltimore enjoyed its best 12-month period of container business from April 2010 to March 2011 when it processed 632,482 TEUs. The previous high of 629,604 TEUs was reached in January 2007, prior to the recession. In the past three years, the port authority has signed multiyear, long-term contract extensions with container lines Evergreen Marine and Mediterranean Shipping Co. that guarantee transport service. MSC also began a direct, weekly container service from the port to the Far East in mid-2009, increasing MSC's total vessel calls and containers through the port.

Other lines that call Baltimore include CSAV, in a vessel-sharing arrangement with two other carriers on the South American trade, and Safmarine on the Africa lane.

The 14 million consumers between Washington and southeastern Pennsylvania have attracted carriers despite the extra time required to travel up the Chesapeake Bay from the Atlantic Coast. The Baltimore-Washington metropolitan region is the fourth-largest market, and one of the most educated, according to economists. And Maryland has the highest median household income in the nation at \$69,272.

The affluent population is being supplemented by more than 16,000 workers being displaced to Aberdeen, Md., with the closing of Fort Monmouth in New Jersey as part of the military's base realignment process. The average household income of those workers is \$80,000, Joseph Greco, the port's deputy director of marketing, said during a mid-May press briefing at the Port of Baltimore.

Container consumption in the Port of Baltimore's local and regional market is more than 3.1 million TEUs, port economics consultancy Martin & Associates estimated. At least 70 percent of the import cargo that supplies the Baltimore-Washington region moves through other ports and represents an opportunity for Baltimore to capture market share.

In 2010, the port handled 387,059 TEUs.

Greco said Baltimore's inland location can cut \$150 to \$250 off the cost of a truck move compared to competing ports. Interstate 95, the main north-south highway on the East Coast, runs right by the harbor and I-70 heading west is nearby.

One of the areas where port officials believe they have a business advantage is Philadelphia because that city doesn't have a direct vessel service from Asia. Baltimore also has an edge over the Port of Virginia because there aren't as many distribution centers in Norfolk and the surrounding Hampton Roads region, he said.

Logistics facilities are expected to spring up around two new intermodal terminals in southern Pennsylvania — CSX's facility in Chambersburg and Norfolk Southern's in Greencastle. "We're positioned extremely well to provide international cargo for these DCs in the future," Greco added.

Baltimore is also about 50 miles from regional distribution centers in Frederick, Md., and York, Pa., about 100 miles from Chambersburg, Pa.; Winchester, Va.; and Martinsburg, W.Va., and actually closer to Buffalo, N.Y., than the Port of New York and New Jersey.

On July 17, the Port of Baltimore welcomed its largest containership ever, Mediterranean Shipping Line's 9,200 TEU *Bruxelle*, although it cannot enter the port fully loaded until the 50-foot berth is completed.

The Port of Baltimore is already a major player in non-containerized shipping, ranking as the top U.S. port for processing roll-on/roll off cargo including trucks, and imported forest products, salt, sugar and gypsum.

It ranks second for exported autos and third for auto imports, and is in the top three for imported iron ore and aluminum, and exported coal.

Last year, the port's exports increased 72 percent to 18 million tons. Total value of cargo handled at the port grew 37 percent from 2009, pushing Baltimore up a spot to 11th place among U.S. seaports, according to the U.S. Census Bureau. International cargo tonnage moved through the port increased 47 percent to 33 million tons, making Baltimore the 13th-largest port in terms of tonnage (up from 15th place).

Through the first half of 2011 versus the same period last year, general cargo is up 14 percent, ro/ro cargo is up 51 percent, autos increased 10 percent, containers grew 9 percent and paper is up 6 percent.

East Coast ports have increased their share of Asian containerized cargo imports during the past seven years, as shippers sought to diversify their supply chains from the traditional West Coast gateways by using all-water service through the Panama Canal. Analysts predict the market share gains are relatively permanent, but which ports will receive the bulk of future cargoes is an open question as carriers deploy new containerships of 12,000 TEUs or more.

Most ports do not have the infrastructure or required water depth in place yet to service these ocean behemoths. The Port of Virginia is the only port so far that has unrestricted 50-foot water depth and facilities to handle the new generation of vessels. Access to the Port of New York-New Jersey is hindered by the Bayonne Bridge, which vessels have to pass under to reach cargo terminals. Raising the bridge is expected to cost \$1.3 billion and take nine years. Other ports are scrambling to get funding from Congress for the U.S. Army Corps of Engineers to dredge their channels to the requisite depth.

Meanwhile, about 5 percent of vessels call at East Coast ports via the Suez Canal. That route is expected to become more popular, especially for the giant vessels, as more production migrates to southwestern Asia from China and elsewhere.

Still, experts predict the availability of a 50-foot depth would only come into play periodically because many carriers will transload their Asian cargo to smaller feeder vessels in Panama or the Caribbean, vessels gain a couple feet of water clearance as they burn off fuel on their voyage across the ocean, and those at a second port of call would already be lighter from having unloaded at the first port.

The new, long berth and super-post-Panamax cranes scheduled for delivery from China in May will enable Baltimore to handle the largest vessels two years ahead of the Panama Canal widening, while the intermodal rail capacity will enable it to efficiently move the large cargo volumes to and from the dock. Baltimore has long been able to accommodate bulk vessels that require 50-foot drafts at other terminals.

The new rail and marine terminal investments in Baltimore "are really propelling Baltimore into a world-class container facility," said John Martin, whose firm has done port management studies for the Port of Baltimore.

**Rail Connectivity.** Much as the Baltimore & Ohio Railroad made the Port of Baltimore competitive versus New York after the opening of the Erie Canal in 1820 siphoned off discretionary cargo, CSX's upgraded intermodal network is expected to attract container shippers to the Maryland seaport.

The key to CSX's strategy of serving the Midwest east of the Mississippi is its new ultra-modern intermodal terminal in Northwest Ohio, "which we fundamentally believe will change the intermodal system in this country," said Fredrik Eliasson, vice president of emerging markets, at the Port of Baltimore event.

The \$175 million truck-rail transfer center, ironically located on 500 acres in North Baltimore, Ohio, is the world's "first true hub-and-spoke" intermodal facility, and "will enable us to consolidate traffic from a variety of different origins ... and then run smaller sprint trains into markets that we are not serving today," he said.

CSX serves six markets on its network from the Port of Baltimore, in addition to offering connections to the two western railroads. When the National Gateway Initiative is completed CSX will be able to <u>deliver freight to and from another 11 markets</u>.

"That means from this port you'll be able to go out and market to 80 million additional consumers that are not rail-served out of the Port of Baltimore today," Eliasson said. And European cargo destined to go west of Chicago under interline agreements will enjoy a 24- to 48-hour improvement in transit time and better reliability by avoiding the CSX terminals in Chicago, a notorious chokepoint, and going directly to the BNSF Railway and Union Pacific terminals, he added.

The traditional intermodal model involves more of a point-to-point network in which stopping trains en route to add cars degrades operational reliability. The Ohio hub allows trains to be touched one time off the mainline so other traffic is not impaired.

Previously a railroad needed enough containers to create a block of 40 cars before it could add a destination to justify all the train maneuvering between tracks necessary to couple on new cars. CSX can now serve new destinations with as few as five containers because of the efficiency of the overhead, rail-mounted gantry cranes used instead of forklift-style "reachstackers" and small cranes, said Vance Bennett, director of intermodal port strategy.

The hub system gives CSX a better opportunity to compete with truckload carriers that offer direct transport from origin to destination.

CSX has been gradually transitioning customer shipments through the new terminal since it opened in February. Service is scheduled to begin to Toledo, Ohio, in the third quarter and to Cleveland and Columbus, Ohio, in the fourth quarter. Cincinnati and Louisville, Ky., will get connected to Baltimore in the first quarter of 2012. CSX plans to build an intermodal terminal to serve Pittsburgh by 2014, Bennett said.

Once all of the transitions are complete, the Northwest Ohio facility is expected to handle more than 30 trains per day and a throughput capacity of nearly 2 million containers per year, including block swaps and lifts. Blocks are multiple rail cars with a common destination, and lifts refer to container handling between railcars and trucks.

Wood County officials are trying to attract companies involved in logistics, subassembly and grain transloading to a 1,000-acre site zoned for a planned business park across the highway from the rail transshipment facility.

The new International Container Transfer Facility south of Baltimore will have the same technology as the Ohio hub. It will alleviate the Howard Street Tunnel bottleneck at a fraction of the cost of converting the tunnel for double-stack trains, industry officials said at the press event.

Containers will be shuttled from Seagirt to the intermodal yard by on-dock trains or truck, depending on whether there are enough containers arriving to create a full train, Eliasson said.

Ports America operates CSX's existing intermodal facility next to Seagirt, and has the right of first refusal on the property once CSX relocates. It plans to take ownership and remove the fence line between the two properties to create true on-dock rail instead of near-dock rail, Mark Montgomery, chief executive officer of Ports America Chesapeake, told *American Shipper*.

The two facilities currently cannot be integrated because they are manned by two different unions, one for rail workers and one representing longshoremen. Once Ports America owns both properties it would be able to load ships directly from the rail and vice versa instead of having to shuttle containers between the wharf and rail line with yard tractors, as is done in most facilities on the East Coast.

The single-stack trains will head to the new ICTF, where CSX will top them off — "toupéed" in CSX vernacular. Train cars arriving from Chicago and other points west will be "filleted" to one container before being rolled to Seagirt.

Baltimore's emergence as a key intermodal hub will also be greatly influenced by the development of an off-dock logistics park adjacent to the Seagirt Terminal, according to port and industry officials. The proximity of warehouses and distribution centers to the terminal will substantially reduce the cost of truck shuttles and for shippers, Ports America officials said.

There are 199 acres of land with space for 1.1 million square feet of warehousing, according to Montgomery.

The terminal operator is working with city and state officials to create a flyover from

the backside of Seagirt to the property, with the goal of creating a "green lane" valet service for boxes headed to the near-dock distribution centers, he said. Truckers would be able to pick up their containers from a special, wheeled-staging area faster than those who come through the main entrance and have to wait for a box to be removed from a stack and brought to their chassis. The drivers from the logistics park would go through an automated gate and get cleared with the help of radio-frequency identification tags, Montgomery said in a follow-up interview.

In addition to lowering the cost of drayage compared to distant warehouses, the logistics park would also allow shippers to stuff containers in excess of the permitted weight limits allowed on public roadways.

Ports America plans to test its concept with Merchants Terminal Corp., a distributor of refrigerated food, located next to the Seagirt Terminal on the site of a former General Motors plant, Montgomery said.

Merchants' opened its refrigerated distribution center for international cargo almost two years ago to maximize the loading of containers without having to worry about weight restrictions, said Brooks Royster, vice president of MTC Logistics and former executive director of the Port of Baltimore, on the sidelines of the briefing.

Merchant's main customer in Baltimore is The Fishin' Co., one of the largest suppliers of frozen seafood to Wal-Mart. Merchants takes fish from floor-loaded containers and creates shrink-wrapped pallets that are placed on domestic trucks for delivery to Wal-Mart.

Ports America's strategy in Baltimore parallels what it is doing in the Port of Oakland out west, where in 2009 it won a 50-year concession to operate a large terminal, partnered with MSC, to bring large volumes of cargo from Long Beach. It plans to operate a near-dock rail facility once it's approved and built by a real estate developer that also wants to create a logistics park next to the rail and marine terminals.